

the DEPplusPAS group at 3-months ($p < .05$) and 6-months ($p < .01$). Reduction in cholesterol-ratio ($p < .01$), increase in HDL ($p < 0.05$), and reductions in blood pressure, resting heart rate and BMI (approaching statistical significance p 's < 0.10) were also reported for both groups. *Discussion:* This study offers support for the effectiveness for improving PA and some clinical and physiological measures in the short and long-term among adults with T2DM. Further, the study provides support for the addition of a supplemental PA program for improving PA behavior, fitness and cardiovascular disease risk profile among this population. In conclusion, our results suggest an effective and potentially feasible program for promoting long-term PA behavior change can improve fitness among individuals with T2DM.

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The effects of an exercise-based lifestyle change program on cardiovascular reactivity of overweight women

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Introduction: The effect of a lifestyle intervention involving 12 weeks of high intensity intermittent exercise training combined with a Mediterranean-style eating plan and fish oil supplement (1.8 g per day) on cardiovascular response during and after mental challenge (Stroop Colour-Word Task) was examined in 32 overweight (BMI $27.7 \pm 0.6 \text{ kg m}^2$) untrained premenopausal young women (22.0 ± 0.6 years). *Method:* Peak oxygen uptake was assessed using open-circuit spirometry (True Max 2400, ParvoMedics) and body composition was measured using DEXA (dual energy X-ray absorptiometry; DPX-IQ, Lunar Radiation). Forearm blood flow was assessed using plethysmography. The surface electrocardiogram and continuous beat-to-beat arterial blood pressure were also monitored. *Results:* Results indicate that compared to the control condition, the 12-week exercise group significantly reduced body fat ($p < 0.001$) and improved aerobic fitness ($p < 0.001$). No changes in cardiovascular response to Stroop was found after 12 weeks of lifestyle intervention except for a marginal decrease in rate pressure product ($p = .126$) suggesting decreased myocardial oxygen consumption. However, in terms of recovery response from the Stroop, heart rate ($p < 0.01$) and rate pressure product ($p < 0.05$) for the exercise group were significantly reduced after 12 weeks of exercise. *Conclusion:* In conclusion, a lifestyle intervention that included intermittent exercise training, a Mediterranean-style eating plan, and a fish oil supplement significantly enhanced the cardiac and vascular recovery to mental challenge of young, overweight women.

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Improving health behaviour outcomes through motivational interviewing in patients with chronic disease

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Introduction: Peripheral arterial disease (PAD) is a group of disorders leading to impaired blood supply to vital organs. PAD is more common in the elderly and people with poor health behaviours, such as those who smoke and the obese. Poor nutrition, smoking and lack of physical activity are significant modifiable risk factors associated with poor outcome for these patients. It has been previously demonstrated that obesity is an important risk factor for PAD and if it remains uncorrected predicts poor outcomes during follow-up. As many as 80% of patients with PAD are overweight or obese. Effective methods of motivating health behaviour change with elderly patients are needed to improve the outcome for patients who currently have the problem. A 12-week pilot study was conducted to assess the effect of Motivational Interviewing (MI) to improve health behaviours for patients with PAD. *Methodology:* 19 participants diagnosed with PAD were randomised to receive MI intervention ($n = 8$) or a control with no MI ($n = 11$). Participants in the intervention group received up to four MI sessions over an eight week period that focused on their barriers to change and motivation for engaging in physical activity, medical compliance, dietary improvement and smoking cessation. Outcome was assessed in terms of these behaviours and quality of life at entry and 12 weeks. *Results and conclusions:* At the end of the 12 week study, participants in the MI intervention group reported a higher level of physical activity (+33 Mets-min/week) than the control group (-66 Mets-min/week). Participants in the MI intervention group also reported increased consumption of healthy foods (Wilcoxon signed-rank, $p = 0.01$) and reduced consumption of fast foods (Wilcoxon signed-rank, $p = 0.014$) over the duration of the study. Quality of life parameters showed improvements in perceived pain for the MI group compared to controls (SF-36 Bodily Pain, Wilcoxon Signed Rank $p = 0.08$). MI may have a value in improving quality of life and health behaviours in patients with PAD but larger and longer term studies are needed.

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